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2122 #6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No. 9354.00

Application of

Monty Gatehouse et al.

Serial No. 09/885,515

Filed: June 20, 2001

**CLAIM FOR BENEFIT OF
EARLIER-FILED FOREIGN
APPLICATION**

Confirmation No.: 3359

Group Art Unit: 2122


Examiner: Unknown

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SEP 28 2001
Technology Center 2100

FOR: MEANS FOR AND METHOD OF DISPLAYING A
VISUAL DECISION TREE MODEL

CERTIFICATE OF MAILING

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Shirley Doll

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

Applicants wish to claim the benefit of the filing date of the earlier G.B. Application Serial No. 0015404.7, filed on **June 24, 2000**, recited in the Declaration under the provision of 35 U.S.C. 119, and accordingly, Applicants submit herewith a certified copy of said application.

Respectfully submitted,



Michael Chan
Reg. No. 33,663
Attorney for Applicant(s)

NCR Corporation, Law Department, WHQ5E
1700 S. Patterson Blvd., Dayton, OH 45479-0001
Tel. No. 937-445-4956/Fax No. 937-445-3733

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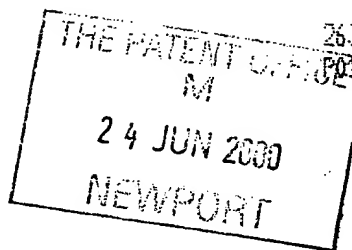
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Statement of inventorship and of right to grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

1. Your reference

9354

2. Patent application number
(The Patent Office will fill in this part)

0015404.7

24 JUN 2000

3. Full name, address and postcode of the or of each applicant (underline all surnames)

NCR INTERNATIONAL, INC
1700 SOUTH PATTERSON BOULEVARD
DAYTON, OHIO 45479
UNITED STATES OF AMERICA

Patents ADP number (*if you know it*)

7409352001

If the applicant is a corporate body, give the country/state of its incorporation

INCORPORATED IN THE STATE OF DELAWARE

4. Title of the invention
VISUAL ARCHITECTURE MODEL

MEANS FOR AND METHOD OF DISPLAYING A

5. Name of your agent (*if you have one*)
"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

B WILLIAMSON
INTERNATIONAL IP DEPARTMENT
NCR LIMITED
206 MARYLEBONE ROAD
LONDON NW1 6LY

Patents ADP number (*if you know it*)

7791767007

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (*if you know it*) the or each application number

Country Priority application number
(*if you know it*)

Date of Filing
(*day/month/year*)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
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8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (*Answer 'Yes' if:*

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant, or
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- See note (d))

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Claim(s)	2	✓
Abstract	1	✓
Drawing(s)	3 + 3	✓

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Priority documents

Translation of priority documents

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination (*Patents Form 9/77*)

Request for substantive examination (*Patents Form 10/77*)

Any other documents (*please specify*)

1 ✓

11.

I/We request the grant of a patent on the basis of this application.

Signature

Christine Sheppard

Date 23/06/2000

12. Name and daytime telephone number of person to contact in the United Kingdom

CHRISTINE SHEPPARD
020 7725 8379

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**MEANS FOR AND METHOD OF DISPLAYING
A VISUAL DECISION TREE MODEL**

BACKGROUND OF THE INVENTION

5

The present invention relates to a means for and method of displaying a visual Decision tree model.

- 10 A decision tree is a logical pathway of steps involved in considering the input necessary to make a decision. Often information necessary to make a truly informed decision will come from a host of different people from different commercial disciplines. Some information may come from within and some from outside of a company.
- 15 The decision tree model (which is created by a graphical-based or symbol-based tool) is a very effective way to present and communicate the resulting deliverable. Decision trees can be modelled using tools such as the METIS Object Oriented Visual Modelling tool, sold by Computas Ltd.
- 20 Clearly, in real commercial decision making the options available can be numerous. Consequently, a decision tree can become extremely complex very quickly. This can make the use of such systems less intuitive and consequently less useful in the decision making process.
- 25 The present invention addresses this problem and in particular aids a user to cope with the complexity of decision taking found in today's distributed and ever increasingly global organisations. The means and method in accordance with the present invention also enables managers to communicate, distribute and share their decision taking across the Internet.

30

SUMMARY OF THE INVENTION

According to a first aspect of the present invention there is provided a computer implemented means for displaying a visual Decision tree model in a symbol based
5 table the visual decision tree model including a plurality of visual objects each of the visual objects being linked to at least one other object to form a decision tree, characterised in that after the initial object the tree displays only visual objects which depend from objects which have been selected by a user.

10 According to a second aspect of the present invention there is provided a computer implemented method of displaying a visual architecture model in a symbol based table, the visual architecture model including a plurality of visual objects each of the visual objects being linked to at least one other object to form a decision tree, characterised in that after the initial object the tree displays only visual objects which
15 depend from objects which have been selected by a user.

The decision tree model gradually exposes to the user the step by step decisions to be taken at each level in the tree. Furthermore the model assists in the decision making process by prompting the users with issues to be considered and questions to be
20 answered at each level within the structure. Having made this selection the model then identifies the Cost Risks and Work involved resulting from the decisions taken.

The Decision Tree Methodology is a commonly used management technique and it is not this methodology but its application within a visual-modelling tool that is new and
25 unique

Preferably, decision based information is provided to the user through browser buttons at each Level within the tree

30 Most preferably the information includes concepts which the user should consider prior to making the decision.

Alternatively, the information includes questions, which the user should ask prior to making the decision.

- 5 Still further the information includes answers to those questions which have been put forward by other users.

Preferably, once the final object in the tree is presented consequences of that choice are presented to the user.

10

Most preferably, the consequences include cost implications of the choice.

Alternatively, the consequences include workload implications of the choice.

- 15 Alternatively, the consequences include risk analysis of the choice.

BRIEF DESCRIPTION OF THE DRAWINGS

- 20 An embodiment of the present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 illustrates a user interface display, displaying a first decision tree in accordance with the present invention;

Figure 2 illustrates a user interface display, displaying a second decision tree in accordance with the present invention; and

- 25 Figure 3 illustrates the user interface of Figures 1 and 2 displaying a list of CONSIDERATIONS to be thought about before making a considered choice.

- 30 Figure 1, illustrates a user interface display 10 of an object oriented visual modelling tool, such as the METIS tool provided by Computas Ltd, operating in accordance with the present invention.

The display 10 indicates a decision tree 12, which is being utilised to formulate decisions regarding the introduction of the Euro currency by a financial institution. The tree 12 includes a plurality of visual objects 14 each of which are linked to at least one other object 14 to form the decision tree 12. After the initial object 14A the tree 12 displays only visual objects 14 which depend from objects 14B, which have been selected by a user. As the user works through the tree the branches of the tree which would depend from objects 14, which have not been selected are not shown. This leads away from the trend in the field in which as much information as possible is provided to a user in order to make decisions. Instead a gradual release of information is used in the method and means in accordance with the present invention.

At this stage the viewer should note that the current decision tree if and when fully displayed has 32 paths in all. However, only the selected path is shown.

15

Information is provided to the user through browser buttons 16 once the user has been provided with a choice between, at least, two options. In the present embodiment the considerations in question are detailed in Figure 3 and include:-

- 20 Consider any relevant, National Central Bank directives or policies;
Consider your business requirements;
Consider the Automated Teller Machine (ATM) utilisation pattern for the market in question;
Consider available resources;
- 25 Consider the level of customer availability requirements;
Consider switch networking interface requirements;
Consider other networking interface requirements; and
Consider front loading prior to E-moment .
- 30 Accordingly, if a user is faced with the question "Big Bang or phased deployment" he or she should consider the relevant topics above including the national Central

Bank directives and our resources t meet the choice made. In the example illustrated in figure 1 "Big Bang" was selected. This means a rapid deployment. However, a slow deployment may be appropriate in other territories or markets.

- 5 Alternatively or additionally, the information may include questions, which the user should ask prior to making the decision. For simplicity no such questions are illustrated. However, they may include questions, which help with the aforementioned considerations in order to focus all user's minds on the same topics, so that each user makes decisions based on the same criteria. Answers to those
- 10 questions, which have been put forward by other users, may also be available to a user to assist in the decision making process.

Thus a user will work his or her way through the tree until they come to a final object. Once the final object in the tree is presented consequences of that choice may

15 be presented to the user. For example, the user may be informed of cost implications of the choice. Alternatively or additionally, the uses may be informed of workload implications of the choice. This will assist in personnel management issues resulting from the choice. Alternatively or additionally, a risk analysis of the choice may be provided.

20

While the invention has been illustrated and described in detail in the drawing and foregoing description, it should be understood that the invention may be implemented through alternative embodiments within the scope of the present invention.

CLAIMS:

1. A computer implemented means for displaying a visual decision tree model in a symbol based table, the visual model including a plurality of visual objects each of the visual objects being linked to at least one other object to form a decision tree, characterised in that after the initial object the tree displays only visual objects which depend from objects which have been selected by a user.

2. A means as claimed in claim 1, wherein information is provided to the user through browser buttons at each object.

3. A means as claimed in claim 1 or claim 2, wherein the final object set in the tree is presented consequences of that choice are presented to the user.

4. A computer implemented method of displaying a visual decision tree model in a symbol based table, the visual model including a plurality of visual objects each of the visual objects being linked to at least one other object to form a decision tree, characterised in that after the initial object the tree displays only visual objects which depend from objects which have been selected by a user.

5 A method as claimed in claim 4, wherein information is provided to the user through browser buttons at each Decision level within the tree

6 A method as claimed in claim 5, wherein the information includes issues that the user should consider prior to making the decision.

7 A method as claimed in claim 5, wherein the information includes questions, which the user should ask prior to making the decision.

8 A method as claimed in claim 7, wherein the information includes answers to those questions that have been put forward by other users.

9 A method as claimed in any of claims 4 to 8, wherein the final object in the tree is presented consequences of that choice are presented to the user.

5 10 A method as claimed in claim 9, wherein the consequences include cost implications of the choice.

11 A method as claimed in claim 9, wherein the consequences include workload implications of the choice.

10

12 A method as claimed in claim 9, wherein the consequences include risk analysis of the choice.

**MEANS FOR AND METHOD OF DISPLAYING
A VISUAL DECISION TREE**

5

Abstract

10 A computer implemented means for and method of displaying a visual decision tree model in a symbol-based table is disclosed. This visual model includes a plurality of visual objects each of the visual objects being linked to at least one other object to form a decision tree. The invention is characterised in that after the initial object the tree displays only visual objects that depend from objects which have been selected by a user. Thus the device displays only the path selected.

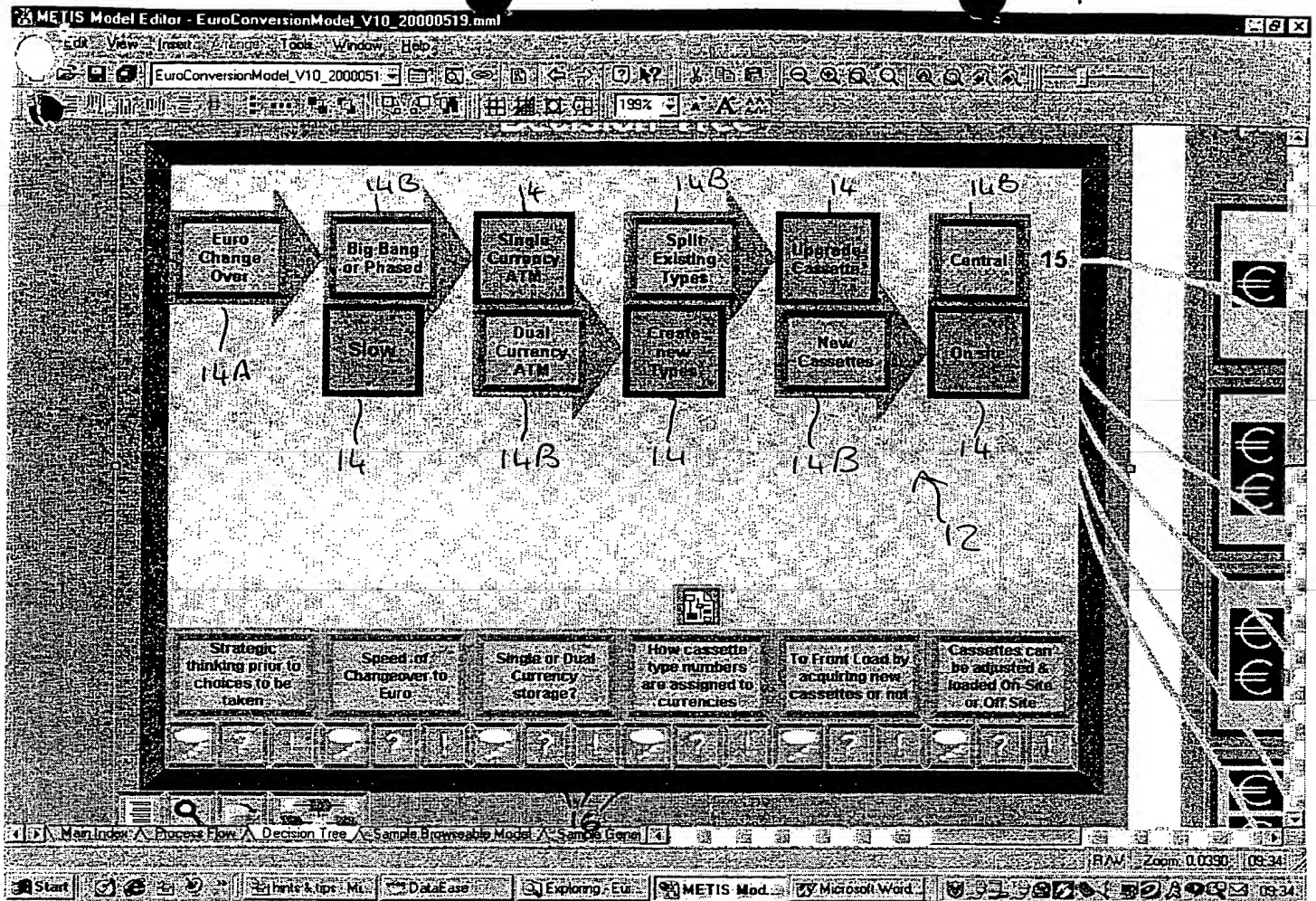
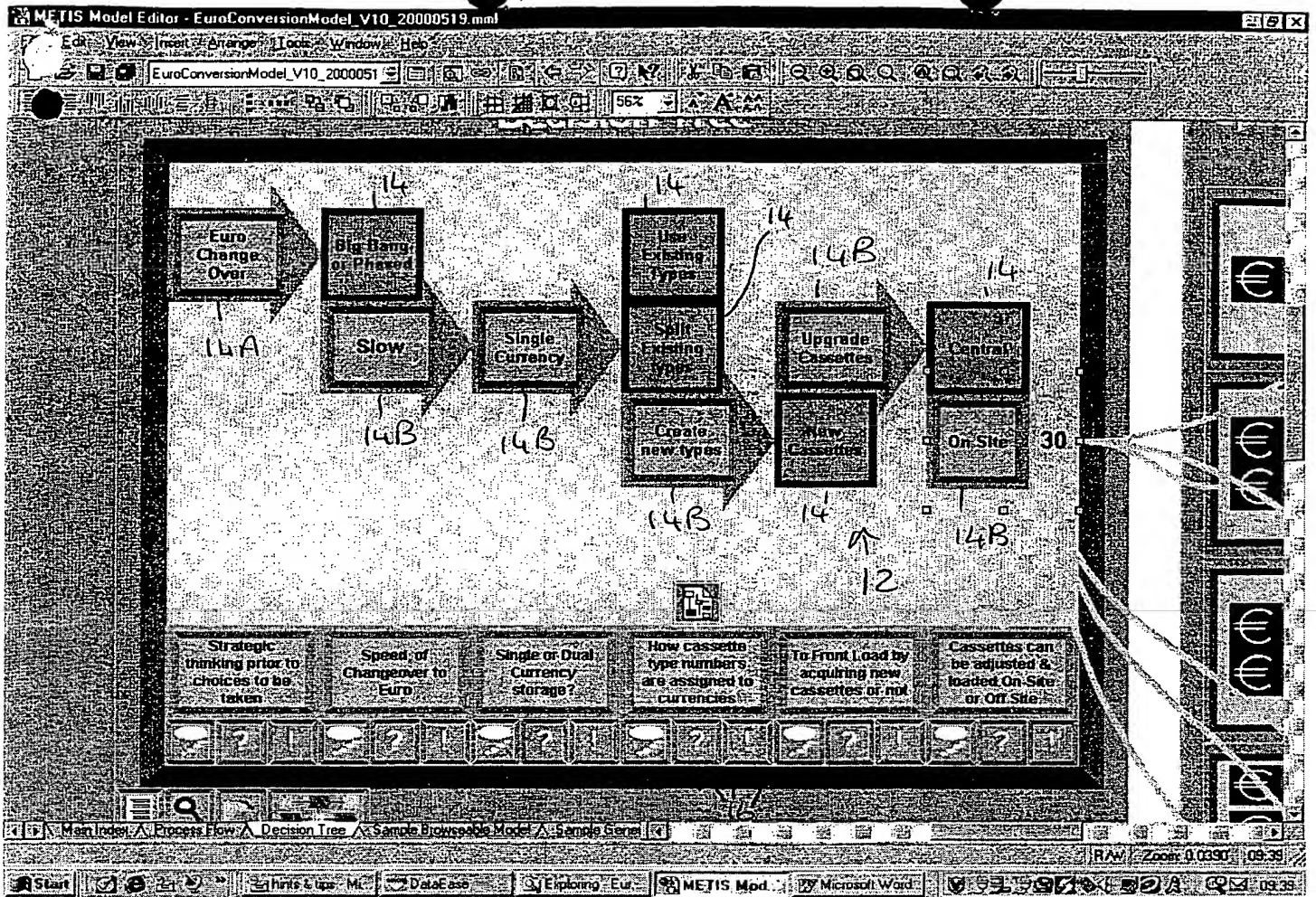


Figure 1

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10

Figure 2

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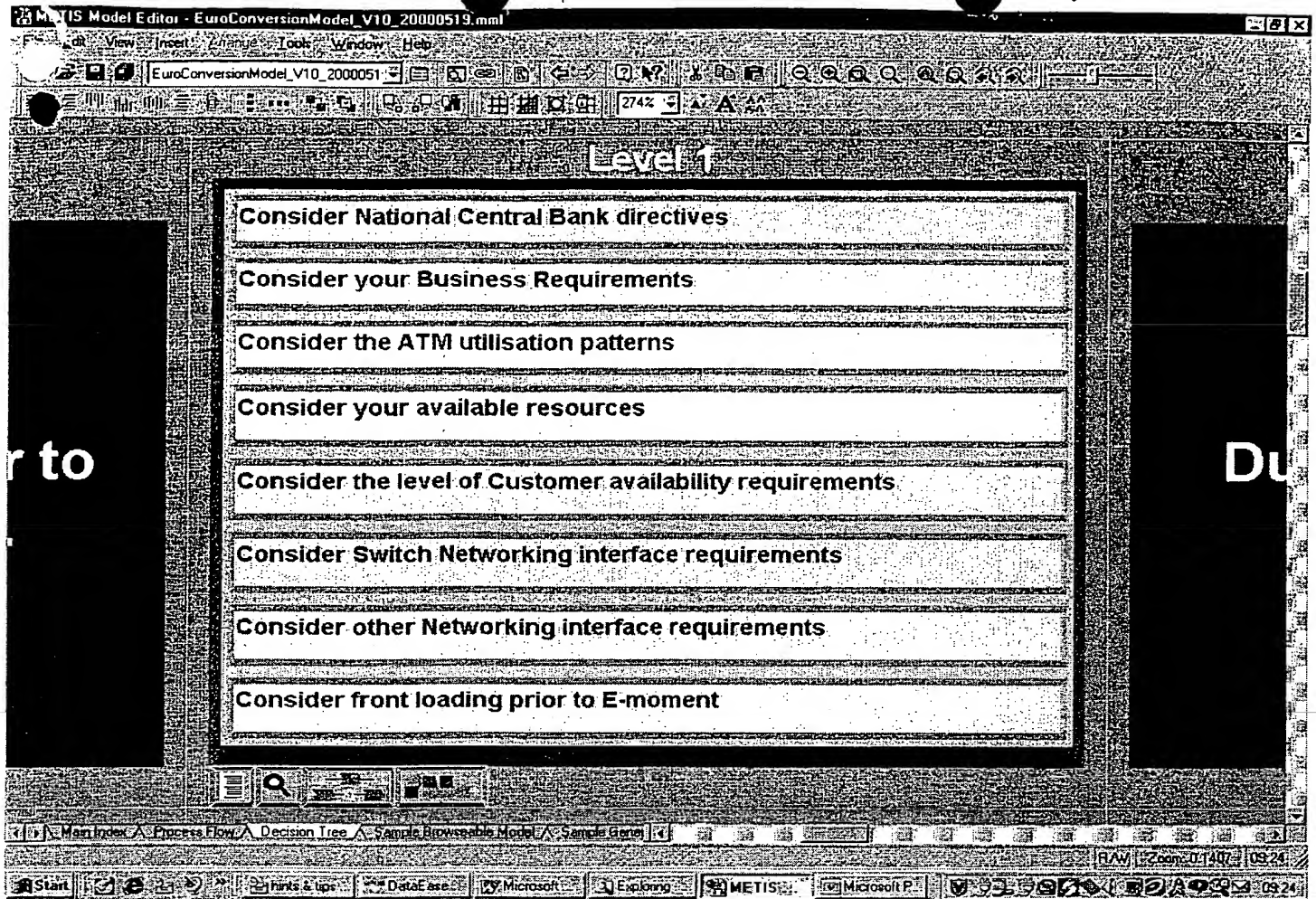


Figure 3

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